

EUROPEAN PATENT OFFICE

Patent Abstracts of Japan

PUBLICATION NUMBER : 2002141013
PUBLICATION DATE : 17-05-02

APPLICATION DATE : 01-11-00
APPLICATION NUMBER : 2000339137

APPLICANT : HITACHI LTD;

INVENTOR : ASAI SUUYO;

INT.CL. : H01J 37/244 G01N 23/225 G03F 7/20
H01L 21/027

TITLE : ELECTRON DETECTING DEVICE,
CHARGED PARTICLE BEAM DEVICE,
SEMICONDUCTOR INTEGRATED
CIRCUIT DEVICE, AND PROCESSING,
OBSERVATION, INSPECTION
METHODS FOR SEMICONDUCTOR
INTEGRATED CIRCUIT DEVICE

ABSTRACT : PROBLEM TO BE SOLVED: To reduce an erroneous signal caused by reflected electron of higher order or secondary electron which lower the detection accuracy of the reflected electron.

SOLUTION: For the electron detecting device of which, a holder is composed of a plurality of cylinders having a spinning part, a detector is mounted inside the cylinder having the spinning part with an intended intake angle, and the spinning part of the cylinder having a detector selectively collects only the reflected electron directly traveled from a sample. The cylinder or the spinning part with not intended intake angle catches the reflected electron, or the like traveled from the sample so as not to make them become the reflected electron of higher order or the like, and also catches the reflected electron of higher order collided against the top end part of the cylinder or the spinning part, and prevents the detector from receiving the reflected electron of higher order.

COPYRIGHT: (C)2002,JPO

4

